APR09-2009-000737

Abstract Submitted
for the APR09 Meeting of
The American Physical Society

Sorting Category: A19. (E)

A matrix element analysis measurement of the top quark mass in the lepton + jets channel with an in situ jet energy scale measurement DARYL HARE, Rutgers University , CDF COLLABORATION — We measure the top quark mass from $p\bar{p}$ collisions at 1.96 TeV at CDF in the lepton + jets channel with at least 3 fb^{-1} of data. Events require a single lepton, missing transverse energy, and 4 jets of which at least one must be tagged as a b jet. We use a 2D unbinned likelihood fit based on per-event probabilities calculated from leading-order signal ($t\bar{t}$) and background (W+jets) matrix elements. Our measurement is dependent upon the energy scale of calorimeter jets, so we measure this scale in-situ by constraining the invariant mass of the two jets from to the W boson mass.

Florencia Canelli
canelli@uchicago.edu
University of Chicago/Fermilab

[X] Prefer Oral Session
[ ] Prefer Poster Session

Date submitted: 09 Jan 2009 Electronic form version 1.4